IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In the Patent Application of Eric J. Hansen and Jesse J. Williams	Group Art Unit: 1796
Serial No.: 09/589,973	Examiner: Necholus Ogden Jr.
Filed: June 8, 2000	
For: EXTRACTION CLEANING WITH OXIDIZING AGENT	
Our Ref: 71189-1300	

REPLY TO EXAMINER'S ANSWER TO APPELLANTS' APPEAL BRIEF

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Commissioner for Patents
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Sir:

This paper is a reply to the Examiner's Answer, mailed April 15, 2009, in accordance with the provisions of 37 C.F.R. § 41.41.

NEW ISSUES TO BE REVIEWED ON APPEAL

The Examiner has raised new issues regarding the rejection of claims 2-10, 12-16 and 18-28 under 35 U.S.C. § 103(a) based on U.S. Patent No. 5,576,282 to Miracle and U.S. Patent No. 5,500,977 to McAllise. This Reply will address several new issues raised by the Examiner in the Answer, and supplements the arguments made by Appellants in their Appeal Brief.

A. U.S. Patent No. 5,576,282 to Miracle et al. has been mischaracterized.

The Examiner has mischaracterized Miracle et al. '282 and has failed to properly determine the scope and content of the prior art. The Examiner represents that Miracle et al. '282 teaches heating oxidative solutions to temperatures in excess of 60° C. *Examiner's Answer, p. 6, ln. 1-3; p. 8, ln. 2-4; p. 10, ln. 6-10.* In support of this representation, the Examiner cited the background in Miracle et al. '282 that prior art oxygen bleaching agents are temperature dependent and that temperatures in excess of 60° C are required for effectiveness of oxygen bleaching agents. *Miracle et al. '282, Col. 1, ln. 25-31.* While Miracle et al. '282 may disclose a factual statement regarding the thermodynamic properties of prior art oxygen bleaching agents, this statement is not a teaching of the Miracle et al. '282 composition. Miracle et al. '282 does not disclose that the *Miracle et al. compositions* should be heated above 60° C as the Examiner contends. *Examiner's Answer, p. 6, ln. 1-3; p. 8, ln. 2-4; p. 10, ln. 6-10.*

To the contrary, Miracle et al. '282 discloses compositions with an oxygen bleaching agent and a bleach activator that are effective at low water temperatures, 20-40° C. *Miracle et al. '282, Col. 2, ln. 1-3; Col. 4, ln. 35-38; Examples I-IX.* The Miracle et al. '282 compositions are intended for use as laundry detergents. *Miracle et al. '282, Col. 9, ln. 49-53; Col. 28, ln. 47-50.* Temperatures in excess of 60° C are unsuitable for laundry and can result in damage to the laundry fabric. The expressly stated goal of the Miracle et al. '282 compositions is a safe and effective bleaching composition suitable for use with laundry at low water temperatures. *Miracle et al. '282, Col. 1, ln. 60-63; Col. 4, ln. 35-38.* Nowhere does Miracle et al. '282 disclose the step of heating the *Miracle et al. bleaching composition* above 60° C as the Examiner contends. Miracle et al. '282 teaches the use of the Miracle *et al. compositions at low*

temperatures at or near ambient temperature. *Miracle et al. '282, Col. 2, ln. 1-3; Col. 4, ln. 35-38; Examples I-IX.* There is no teaching, motivation or suggestion in Miracle et al. '282 to heat the bleaching compositions of Miracle et al. '282 above 60° C and in fact Miracle et al. '282 expressly teaches that this is unnecessary.

Appellants submit that one of ordinary skill in the art would use the Miracle et al. '282 compositions with the extractors of either Wang '696 or McAllise '977 without any heating step because Miracle et al. '282 teaches that there is no reason to heat these bleaching compositions. As discussed in Appellants' Appeal Brief filed Aug. 13, 2008, there is no reason as to why a combination of Miracle et al. '282 and Wang or McAllise should be modified to meet the Appellants' invention as set forth in claims 18 and 21. *Appeal Brief, p. 7, ln. 9-24; p. 9, ln. 4-12; p. 10, ln. 18, 31; p. 12, 12-27.*

Furthermore, in its decision mailed Aug. 17, 2005, the BPAI held that Miracle et al. '282 has no teaching or suggestion of the claim 18 limitations of "mixing the admixture with heated air to heat the admixture; and heating the air before the step of mixing the admixture with the heated air." In addition, in its August 17, 2005 decision, the BPAI held that Miracle et al. '282 has no teaching or suggestion of the claim 21 limitation of "heating the cleaning solution before the admixing step to heat the admixture." *BPAI Decision, p. 6, ln. 21-22; p. 7, ln. 1-17.* Appellants believe that the Board's prior decision in this matter as to the teaching of Miracle et al. '282 is controlling on the issues of this appeal.

For these reasons, in addition to the reasons as set forth in Appellants' Appeal Brief, the Examiner has failed to meet his burden to establish a prima facie case of obviousness under 35 U.S.C. 103.

B. The Examiner has failed to properly ascertain the differences between the prior art and the claims at issue.

In the Examiner's Answer mailed April 15, 2009, the Examiner has given no weight to the order of mixing as set forth in claim 21, contrary to the BPAI's previous decision. The Examiner attempted to use the Miracle et al. '282 background disclosure of the temperature dependence of oxygen bleaching products to bootstrap his conclusion that it would have been obvious to heat the cleaning solutions of either Wang '696 or McAllise '977 prior to admixing these cleaning solutions with the bleaching compositions of Miracle et al. '282 as set forth in

claim 21. *Examiner's Answer, p. 6, ln. 7-17; p. 8, ln. 8-17; p. 10, ln. 6-15, 18-22; p. 11, ln. 1-6.* In reversing the previous rejection based on a combination Miracle et al. '282 and extractor references of the same ilk as Wang '696 and McAllise '977, the Board held that there was nothing in the references applied by the Examiner that taught or suggested the claim 21 step or act of "heating the cleaning solution before the admixing step to heat the admixture."

In its previous decision in this case in response to the Examiner's statement that "the order of mixing will not be given patentable weight", this Board, citing *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 197), held that the Examiner's position was "wholly inappropriate" and "directly contrary to long established legal precedent." *BPAI Decision, p. 7, ln. 10-17; p. 8, ln. 1-4.* Under *In re Wilson*, all words in a claim must be considered in judging the patentability of that claim against the prior art. The Examiner has not only disregarded the clear teaching in *re Wilson*, he has completely disregarded the clear direction of this Board in its previous decision on this matter. Despite repeated admonitions to the Examiner as to the prior decision of the Board on this matter, the Examiner is resolute in his disregard to the law of this case.

For these reasons, in addition to the reasons as set forth in Appellants' Appeal Brief, the Examiner has failed to meet the burden to establish a prima facie case of obviousness under 35 U.S.C. 103.

C. The Examiner has mischaracterized the McAllise et al. '977 Reference.

The Examiner does not appear to have a clear understanding of how the extraction machine of McAllise et al. '977 works and therefore has inaccurately characterized the teaching of McAllise et al. '977. In the Examiner's Answer, the Examiner represented that the motor 610 generates warm air that is discharged through the nozzle 65 and conveyed to the surface to be cleaned. *Examiner's Answer, p. 9, ln. 5-7; p.10, ln. 1-3.* There is no disclosure in McAllise et al. '977 that supports this conclusory statement and it is flatly wrong. Appellants will demonstrate below that McAllise et al. '977 discloses that the motor 628 is cooled in an independent cooling path that is separate and apart from the working air path that is controlled by the motor driven suction fan 620.

As can best be seen in Figures 6, 8B and 11A of McAllise et al. '977, it is the suction fan 620 of the motor/fan assembly 610 that discharges air to the discharge nozzle 65 through the air

exit ports 626 of the suction fan 620. *McAllise et al. '977, Col. 3, ln. 20-27; Col. 8, ln. 54-60.* The air that is to be discharged is drawn from the recovery tank 50 via stand pipe 572 and 672 into the inlet plenum 619 by the suction fan 620. As can best be seen in Figure 2 of McAllise et al. '977, this passage completely avoids the motor 626. *Appeal Brief, p. 6, ln. 11-12.* There is no feasible way for the air that is to be discharged through discharge nozzle 65 to be heated by the motor 628 of the motor/fan assembly 610 because it completely bypasses the motor 628. In addition, the motor 628 cannot heat the air that is to be discharged because the motor 628 is itself cooled by a separate cooling path. *McAllise et al. '977, Col. 3, ln. 33-39.*

The Board's attention is now directed to inset which is a schematic representation of the motor cooling path of McAllise et al. '977 and is taken directly from the disclosure of McAllise et al. '977. This schematic representation has been drawn by Appellants' attorneys in order to graphically represent what is disclosed in McAllise et al. '977 in order to assist the Board in its understanding of the motor cooling path disclosed in McAllise et al. '977. Appellants submit that the schematic representation is fully supported by McAllise et al. '977. See, for example, *McAllise et al. '977, Col. 3, ln. 33-39.* Air to cool the motor 628 is drawn in through a cooling air inlet 634 and into a motor cooling chamber 630. *McAllise et al. '977, Fig. 8B; Col. 3, ln. 36-37.* The motor cooling chamber 630 is defined by a motor cover 612 that surrounds the motor portion 628 of the motor/fan assembly 610. *McAllise et al. '977, Fig 6; Col. 3, ln. 33-34.* The air is then exhausted through an exhaust fan atop the motor 628 (not shown) into the exhaust manifold 632. The air then exits the exhaust manifold 632 through a pair of exhaust air outlet conduits 636L, R. *McAllise et al. '977, Fig. 6; Col. 3, ln. 37-39.* The reason that there is a separate cooling path for the motor is that the exhaust air from the fan is moist (as disclosed by McAllise et al. '977) and the moist air would damage the motor. It is common practice in

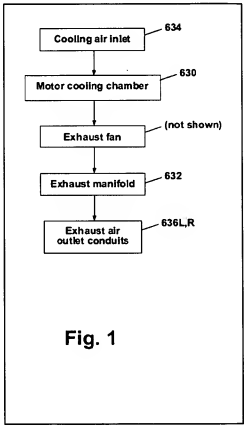

Fig. 1

extractors such as McAllise et al. '977 to have a separate cooling path for cooling the motors and to avoid passing the moist air fan effluent over the motors.

In support of his position, the Examiner cited the passage in McAllise et al. '977 that "warm, moist exhaust air, from motor fan 610, is discharged through discharge nozzle 65 and directed toward the surface being cleaned," to support his arguments for rejection of independent claims 18 and 21. An understanding of how the motor cooling circuit of McAllise et al. '977 operates reveals that there is no possible way for the air discharged from the motor fan to be heated by the motor/fan assembly 610 as the Examiner contends. Not only does the discharged air bypass the motor 628, the only possible source of heat in the system, the motor 628, is itself cooled by a separate cooling path, as illustrated schematically in Figure 1. It is quite clear from a reading of McAllise et al. '977 as set forth above that there is no heating of the air that is discharged through the discharge nozzle 65 by the motor 628 or any other portion of the motor/fan assembly 610.

The Board's attention is now directed to inset Figure 2 which is a schematic representation of the working air path through the McAllise et al. '977 extractor from the suction nozzle to the discharge nozzle 65 and is based on the disclosure in McAllise et al. '977. This schematic representation has been drawn by Appellants' attorneys in order to graphically represent what is disclosed in McAllise et al. '977 in order to assist the Board in understanding the working air flow through the McAllise et al. '977 extractor.

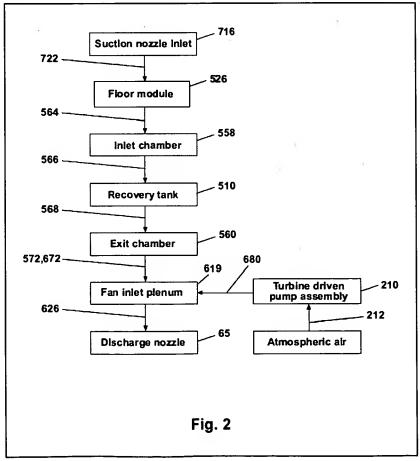

Fig. 2

Appellants submit that the schematic representation is fully supported by McAllise et al. '977. Air and any liquid cleaner entrained in the surface being cleaned are extracted by the suction nozzle inlet 716 due to the suction force created by the suction fan 620. *McAllise et al. '977, Fig. 8B.* Air and liquid is then drawn through the floor module 526 to the discharge opening 722 and into the inlet chamber 558 of the air/fluid separator 552 via the inlet opening 564. *McAllise et al. '977, Fig. 5; Col. 4, ln. 25-31; Col. 5, ln. 11-14.* The air and liquid is then drawn into the recovery tank 510 through the exit opening 566 and air, which may be moist air, is withdrawn into the exit chamber 560 through the entrance passage 568. *McAllise et al. '977, Col. 4, ln. 37-40.* The air which has now been separated from the fluid by the air/fluid separator 552 is drawn into the fan inlet plenum 619 via stand pipes 572 and 672 and discharged to the discharge nozzle 65 through the air exit outlets 626. The suction fan 620 also draws in atmospheric air into the turbine driven pump assembly 210 through turbine inlet port 212, which is then drawn into the fan inlet plenum 619 via the elbow duct 680. *McAllise et al. '977, Fig. 6 & 8B; Col. 10, ln. 22-26.*

The above description of how the McAllise et al. '977 extractor operates and the sources of air of the fan inlet plenum 619, which supplies the exhaust air to the discharge nozzle 65, demonstrates that there is no heating of the air that is discharged through the discharge nozzle 65 by the McAllise et al. '977 extractor. There are only two sources of discharge air: the recovery tank 510 and the turbine driven pump assembly 210. As noted above, the McAllise et al. '977 extractor is a "hot water carpet cleaning extractor" which is usually operated by filling the solution supply tank with hot tap water. The cleaning solution from the solution supply tank 40 is dispensed onto the surface to be cleaned by the discharge nozzle 65; it is then extracted into the recovery tank 510 as shown schematically shown in inset Figure 2. If the extracted cleaning solution is still warm, the air that is drawn from the recovery tank 510 by the suction fan 620 may be slightly warm, producing the "warm, moist exhaust air" that the Examiner refers to in McAllise et al. '977. *McAllise et al. '977, Col. 12, ln. 17.* The likelihood of the exhaust air being much above room temperature is minimal. Because there is no heating element in the McAllise et al. '977 extractor, the hot water from the solution supply tank 40 will immediately start cooling as it is aspirated onto a carpet and subsequently extracted. In addition, the ambient air that is drawn into the fan inlet plenum 619 through the turbine driven pump assembly further contributes to the cooling of the air to be discharged to at least room temperature. And finally,

heat will further be lost as the air and cleaning solution are dispensed under pressure during the atomization process.

It is clear from the foregoing discussion of the McAllise et al. '977 disclosure that there is no teaching of heating the air that is discharged with the cleaning solution and certainly no disclosure in McAllise et al. '977 of the method of "mixing the admixture with heated air to heat the admixture; and heating the air before the step of mixing the admixture with the heated air," as set forth in claim 18. The Examiner has failed to properly determine the scope and content of the prior art as required by the *Graham* factors. *Graham v. John Deere, 383 U.S. 1; 86 S. Ct. 684; 15 L. Ed. 2d 545 (1966).*

For these reasons, in addition to the reasons as set forth in Appellants' Appeal Brief, the Examiner has failed to meet the burden to establish a prima facie case of obviousness under 35 U.S.C. 103.

CONCLUSION

In view of the foregoing, it is submitted that the rejection of claims 2-10, 12-16 and 18-28 is improper and should not be sustained. Therefore, a reversal of the rejections of claims 2-10, 12-16 and 18-28 on all grounds is respectfully requested.

Respectfully submitted,

Date: May 28, 2009

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